Journal of Molecular Evolution

Editor-in-Chief

E. Zuckerkandl, Woods Hole, Mass., USA

Editors

G. Braunitzer, Martinsried, Fed. Rep. Ger.

R.E.DICKERSON, Pasadena, Calif., USA P. EDMAN, Martinsried, Fed. Rep. Ger.

J.L. King, Santa Barbara, Calif., USA J. Oró, Houston, Tex., USA

Editorial Board

E. S. Barghoorn, Cambridge, Mass.

E. A. BARNARD, Buffalo, N.Y.

R. J. Britten, Corona Del Mar, Calif.

R. Buvet, Paris, France

M. CALVIN, Berkeley, Calif.

CH. R. CANTOR, Pasadena, Calif.

L. L. CAVALLI-SFORZA, Palo Alto, Calif.

J. F. Crow, Madison, Wisc.

M. O. DAYHOFF, Washington, D. C.

G. H. Dixon, Vancouver, Canada

R. F. DOOLITTLE, La Jolla, Calif.

R. V. Eck, Athens, Ga.

W. M. FITCH, Madison, Wisc.

M. Florkin, Liège, Belgium

L. L. GATLIN, Davis, Calif.

R. Holmquist, Richmond, Calif.

N. H. Horowitz, Pasadena, Calif.

R. T. Jones, Portland, Oreg.

T. H. Jukes, Berkeley, Calif.

N. O. Kaplan, La Jolla, Calif.

M. Kimura, Mishima, Japan

H. Kuhn, Göttingen, Fed. Rep. Ger.

H. LEHMANN, Cambridge, U.K.

B. McCarthy, Seattle, Wash.

M. MANDEL, Houston, Tex.

E. MARGOLIASH, North Chicago, Ill.

J. MAYNARD SMITH, Brighton, U.K.

ZH. A. MEDVEDEV, London, U.K.

J. V. NEEL, Ann Arbor, Mich.

H. NEURATH, Seattle, Wash.

Т. Онта, Mishima, Japan

A. I. OPARIN, Moscow, U.S.S.R.

L. ORGEL, San Diego, Calif.

L. PAULING, Big Sur, Calif.

J. F. Pechère, Montpellier, France

G. R. PHILIPPS, Bonn, Fed. Rep. Ger.

C. Ponnamperuma, College Park, Md.

B. Pullman, Paris, France

CH. SADRON, Orléans, France

E. Schoffeniels, Liège, Belgium

E. L. SMITH, Los Angeles, Calif.

S. Spiegelman, New York, N.Y.

G. L. Stebbins, Davis, Calif.

J. H. Subak-Sharpe, Glasgow, U.K.

N. Sueoka, Boulder, Colo.

T. SWAIN, Kew, U.K.

B. L. TURNER, Austin, Tex.

L. VAN VALEN, Chicago, Ill.

H. J. Vogel, New York, N.Y.

P. M. B. WALKER, Edinburgh, U.K.

A. C. Wilson, Berkeley, Calif.

C. R. Woese, Urbana, Ill.



The exclusive copyright for all languages and countries including the right for photomechanical and any other reproductions, also in microform, is transferred to the publisher.

The use of registered names, trademarks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

Springer-Verlag Berlin · Heidelberg · New York
Printed in Germany by Universitätsdruckerei H. Stürtz AG, Würzburg
© by Springer-Verlag Berlin · Heidelberg 1975

Contents

Adams, R. P.: Gene Flow Versus Selection Pressure and Ancestral Differentiation	
in the Composition of Species: Analysis of Populational Variation of <i>Juniperus</i>	
	177
	291
	315
	131
	307
	153
Black, J. A., Harkins, R. N.: Partial Gene Duplication and Posterior Pituitary	
Peptide	47
	103
	103
	103
	279
Champion, A. B., Soderberg, K. L., Wilson, A. C., Ambler, R. P.: Immunological	
Comparison of Azurins of Known Amino Acid Sequence. Dependence of	201
Cross-Reactivity upon Sequence Resemblance	
9, ,	131
	307
Danckwerts, HJ., Neubert, D.: Symmetries of Genetic Code-Doublets (Letter	207
to the Editor)	187
	279
Elgin, S. C. R., s. Wu, F. C., et al	87
	103
Ferris, J. P., s. Hubbard, J. S., et al.	223
Fitch, W. M., Yasunobu, K. T.: Phylogenies from Amino Acid Sequences Aligned	225
with Gaps: The Problem of Gap Weighting	1
Fox, G. E., s. Woese, C. R., et al	35
Gressel, J., Berman, T., Cohen, N.: Dinoflagellate Ribosomal RNA; An Evo-	33
lutionary Relic?	307
Harkins, R. N., s. Black, J. A	47
Harris, J. U., Berns, D. S.: Sequence of the N-Terminus Portions of Biliproteins	
	153
Hobby, G. L., s. Hubbard, I. S., et al	223
Hood, L. E., s. Wu, F. C., et al.,	87
Hubbard, J. S., Voecks, G. E., Hobby, G. L., Ferris, J. P., Williams, E. A., Nico-	
dem. D. E.: Ultraviolet-Gas Phase and -Photocatalytic Synthesis from CO	
and NHa	223
Iizuka M Ishii K Matsuda, H.: Comments on Holmquist's Theory for Paleo-	
genetics. The Effect of Multiple Hits on Nucleotide Differences between Homo-	
logous DNA's	249
Ishii, K., s. Iizuka, M., et al	249
Jackson, T. A.: Comments on the Articles of Flores and Bonner and of McCullough	
and Lemmon (Letter to the Editor)	255
Kilkson, R.: Intrinsic Asymmetry of Oligomer Transitions and Biomolecular	
Evolution	125
Lahav, N.: Simultaneous Existence of Different Environments in Aqueous Clay	0.40
Systems and Its Possible Role in Prebiotic Synthesis	
Lambie, W., s. Sullivan, B., et al	103
Loew, G. H., Chang, S., Berkowitz, D.: Quantum Chemical Study of Relative	
Reactivities of a Series of Amines and Nitriles: Relevance to Prebiotic Chem-	124
istry	131

Matsuda, H., s. Iizuka, M., et al	19
mation in the Solid State. I. Reactions of Benzoate Ion and Glycine with Adenosine 5'-Phosphorimidazolide	57
Lohrmann, R., s. Shim, J. L., et al	
McCullough, J. J.: A Reply to the Comments of Jackson on the Articles of Flores	-
	- 7
Neubert, D., s. Danckwerts, HJ	
Nicodem, D. E., s. Hubbard, J. S., et al	
	57
Orgel, L. E., s. Shim, J. L., et al	-
Pennell, L., s. Sullivan, B., et al	-
	35
	57
Reijnders, L.: The Origin of Mitochondria	
	75
Savageau, M. A.: Optimal Design of Feedback Control by Inhibition. Dynamic	
Considerations	
	57
Schlusselberg, J., Debouverie, D.: Study of Double and Triple Simultaneous	
Substitutions of Amino Acids in Cytochromes C	7
Shim, J. L., Lohrmann, R., Orgel, L. E.: Triple Helices Formed by Polyuridylic	
Acid with Some Adenosine Derivatives	
Soderberg, K. L., s. Champion, A. B., et al	1
Sohn, U-Ik, Rothfels, K. H., Straus, N. A.: DNA: DNA Hybridization Studies	
in Black Flies	5
Straus, N. A., s. Sohn, U-Ik, et al	5
Sullivan, B., Bonaventura, J., Bonaventura, C., Pennell, L., Elliott, J., Boyum, R.,	
Lambie, W.: The Structure and Evolution of Parvalbumins. I. Amino Acid	
Compositional Studies of Parvalbumins from Four Perciform Species 10	-
Urbain, J., s. Wuilmart, C., et al	-
Voecks, G. E., s. Hubbard, J. S., et al	.3
Vötsch, W., Anderer, F. A.: The Amino Acid Sequence of Myoglobin from Ske-	
letal Muscles of Red Deer (Cervus elaphus)	
Wijns, L., s. Wuilmart, C., et al	
Williams, E. A., s. Hubbard, J. S., et al	-
Wilson, A. C., s. Champion, A. B., et al	1
of the IS Ribosomal DNA form - DL / 1 / 1	
Woese C. R. s. Zablen, I.	
Woese, C. R., s. Zablen, L	5
of Vertebrate Liver and Kidnow, A Comparation Collins and Proteins	
of Vertebrate Liver and Kidney: A Comparative Study by Gel Electrophoresis Wuilmart, C., Wijns, L., Urbain, J.: Linear and Inverted Repetitions in Protein	7
Sequences	
Sequences	-
Yasunobu, K. T., s. Fitch, W. M. Zablen, L., Woese, C. R.: Procaryote Phylogeny IV: Concerning the Phylogenetic	1
	5
2	_
Erratum: Thiemann, W.: Disproportionation of Enantiomers by Precipitation . 16.	_

Indexed in Current Contents